

THE SURVEY QUESTION.



IN the Straits Settlements the "Survey Question" is one which has been before the public for some years and which, especially since 1883, has been the subject of much discussion—discussion which has just culminated in the publication by Government of a valuable report by an officer of the Survey of India (Lieut.-Colonel BARRON, B.C.S.) especially deputed to study the subject on the spot.

Some of the questions connected with land-revenue administration which have been engaging the attention of the Government of these Settlements (1,310 square miles) have recently been under discussion in a much larger Colony—Cochin China—and I have thought that it may be of interest to the members of our Society, and to persons in the Colony interested in land, if I republish here in English a paper on the subject which appeared last year in the *Bulletin de la Société des Études Indo-Chinoises de Saigon*.

I have translated this paper, not because I agree with the principles which M. CAMOUILLY advocates, but because I have been desirous of understanding, in what manner it has been thought possible to carry out, in an Asiatic Colony, registration of title on the Torrens system without a preliminary general allotment survey. The arguments of the writer are chiefly directed against any project for carrying out a cadastral survey, but he does not seem to realise that some of these arguments, if their cogency is admitted, will militate equally against the introduction of the Torrens system, which he advocates. "Never think," says M. CAMOUILLY, "of carrying out a systematic survey of holdings. Do you know what the effect could be? Why you would destroy the communal system, by which the land-revenue is collected in a lump for each village and would introduce a system of revenue-settlement, holding by holding, which would give infinite trouble."

Later on, his argument in favour of the Torrens system is something of this sort :—"Annamite land-holders are terribly fleeced by money-lenders. Give them Government titles and they will be able to raise money at reasonable rates from respectable establishments. Confine your survey to those lots which

the native land-holders want to bring under the new system."

The questions which will naturally occur to any one on comparing these recommendations are :—

Will not the argument about the communal system, which is said to be a reason for not carrying out a cadastral survey, apply to the proposal to survey separate holdings and issue separate titles for them under the Torrens system?

Suppose that the number of land-holders who apply to have their lands surveyed and their titles registered be very large and constantly increasing, will not the Government be compelled to carry out what would in effect be a cadastral survey?

It cannot be readily admitted that there are any real grounds for the fear expressed that the system of revenue-settlement by villages would be prejudiced by a field to field survey. In British India, the experience is the contrary. It must not for a moment be supposed that the *lambardari* settlement is abandoned and a *raiya-wari* settlement introduced as a consequence of cadastral survey.

The expense of isolated surveys of holdings, to be carried out from time to time, according to demands, by surveyors stationed here and there throughout the country, would be fatal to the success of any voluntary scheme for the introduction of registration of title, and how such isolated surveys are ever to fit together as one compact and accurate map, M. CAMOUILLY does not explain. He had forgotten, perhaps, that in Australia, where he saw and admired the Torrens system, the survey of a whole tract before the alienation of any part of it is the rule.

I have to express to the author, whose work I have translated, and to the *Société des Études Indo-Chinoises de Saigon*, my hope that they will pardon me for having taken for granted their permission to reproduce here this interesting paper on an important subject. If I do not agree with M. CAMOUILLY, being myself an advocate of a good cadastral survey as a help to good administration, and being sceptical as to the existence of difficulties which have been overcome in British India, I am able at all events to place his views before those in this Colony whose opinions may more nearly coincide with his than with mine.

W. E. MAXWELL.

THE SURVEY QUESTION IN COCHIN-CHINA.

(Translated from the "*Bulletin de la Société des Etudes Indo-Chinoises de Saigon*" for the first half-year of 1886.)



THE Colonial Council has lately had under consideration the question of undertaking a cadastral survey of Cochin-China.

In the course of the debate on the subject (at the meeting of the 21st of December, 1885), the Chairman of the Committee for *affaires diverses*, himself opposed to the measure, quoted in support of his opinion a memorandum which I had drawn up on this question. But though unfavourable to the proposed survey, this memorandum contained, on a matter of much more real importance, certain proposals to which no allusion was made in the Colonial Council, and in respect of which I think it advisable to lay certain information before the Committee. I mean the introduction of the Torrens system in the Colony.

No subject is more completely within the scope of the researches to which our Society devotes itself, and there must evidently be every advantage in seeing this question made the subject of such discussions as may eventually contribute to the determination of the steps to be taken in the future. But before laying before the Council the system which I advocate, it is necessary to clear the ground of the proposals having reference to the carrying out of a cadastral survey to which I alluded just now.

These projects originated with Messrs. A——and G——, with the Administrator of Soctrang, and with the Council of the *arrondissement* of Bentré, who in 1884 put forward a resolution on this subject, which was taken up in the Colonial Council by the Hon'ble M. C——.

From the words of the resolution of M. C——, (*Journal Officiel* of the 16th March, 1885), I gather that the local Council of Bentré entertained the idea of undertaking, at their own expense, an allotment survey of the *arrondissement*; it was proposed to ask for authority to take credit in the budget for a special vote, and for power to fix a scale of charges for the remuneration of the surveyors employed in the operations. Where and how these surveyors were to be engaged, the Council does not say.

The resolution of the representatives of Bentré, another which emanated from M. C——, and the offers made by Messrs. A—— and G—— have, in point of fact, the same object, and what I shall have to say about one of these propositions, will apply equally to the other two.

The isolated survey of one or even of two *arrondissements* being quite objectless, the Colony, if she concurs in these projects, impliedly undertakes, by so doing, to extend later on, to the rest of her territory, the allotment survey undertaken at Soctrang and at Bentré, or in either one of these two *arrondissements*.

In reality, therefore, the question which has been brought before the Colonial Council is one of very great magnitude; it is a project so vast that, in comparison with it, the topographical survey on the scale of $\frac{1}{20000}$ on which the whole survey staff has been engaged for the last fourteen years, may be regarded as child's play.

As a considerable outlay, a large staff, and a period of some length must thus be necessary for the accomplishment of this immense work, it ought not to be undertaken without weighing carefully, on the one side, the cost and the chances of success; on the other, the immediate or future advantages which it may hold out to the Treasury and to individuals.

I shall be obliged, therefore, to go somewhat fully into the different matters which I have to lay before you, but as we have to do with a question involving no small demand on the financial resources of the Colony, its importance must be my excuse for discursiveness.

I. THE FEASIBILITY AND COST OF THE SURVEY.

It is necessary, in the first place, to give a general description of the different operations which make up the "*cadastre*," for, as is usual in Cochin-China, the people who talk the most about the allotment survey seem to be those who are least well informed as to the circumstances under which such a work is carried out and maintained.

Nature of survey operations.—A survey, of the nature of that which has been undertaken in France, has for its object the ascertaining of the area of holdings and the sum to be levied thereon by way of revenue.

The plans and areas are consequently made out for individual holdings having regard either to difference of proprietorship or the nature of the cultivation. The plans have to be preceded,—

1st. By the definition of the boundaries, of the "*communes*," a work a great portion of which has already been carried out in the Colony, but being mapped on a scale of $\frac{1}{200000}$, is useless for the purposes of the cadastral survey.

2nd. By triangulation, the purpose of which is to fix with precision certain points selected at convenient distances one from the other, to which the details of the survey are thenceforth referred.

The revenue survey is effected with the assistance of "*indicateurs*" and with the concurrence of the proprietors on whom the surveyors serve notices showing in each individual case the position and area of all the lots belonging to each of them, whether contiguous or scattered here and there in the *commune*.

The areas of these lots are afterwards computed and a list is then prepared describing the proprietors and the holdings.

Commissioners charged with classifying the different kinds of lands proceed then to assess the revenue which is to be leviable on each lot. This is a matter of valuation.

I leave unnoticed the subsequent stages, viz. :—the verifica-

tion of the plans and the preparation of the maps.

The survey of France.—The survey of France designed on these lines is a comparatively recent institution. Its history is well known, and in treating of an undertaking which has taken so long, it seems desirable to recall how it has been carried out in the mother country in order to estimate with due reference to experience, what chances it has of success in the Colony.

I shall not deal here with surveys peculiar to certain provinces, which even before the institution of the *taille réelle* or even of a regular land-tax were, it is said, undertaken in France.

I content myself with asking what could possibly have been the value of an allotment survey of a district, such as the Dauphiné for instance, effected with the appliances of the 14th century. These so-called surveys, if they were ever made, were in every instance successively abandoned, and in the 18th century there was no trace of them left.

In 1763, a general survey of the kingdom was ordered. In the furtherance of the policy of government of that period, it was meant to serve as the basis of the assessment-tax of 20 *c.* (5 per cent. ?) which had just been established. This revenue survey was carried out only in Paris and its neighbourhood. The tax of 20 *c.* (5 per cent. ?) which in 1788 had already been exchanged for a subscription paid by the provinces, was replaced in 1791 by a land-tax which retained the character of a rateable charge upon holdings which the original assessment had had.

In this system of contribution, an exemption from charges by which one proprietor profited was counterbalanced by adding to the share which a neighbouring proprietor had to pay. Unfairness of dealing was inevitable in the absence of a land survey, and resulted in immediate protests.

The Government, hesitating to embark in the labour and expense which a survey would necessarily entail, had recourse, quite in vain, to half-measures—the revision of the registers; the revenue survey of 1,800 *communes*, the result of which was to be applied on the principle of analogy to other parts

of the territory ; compulsory declaration on the part of land-holders of the areas of their respective properties.

These palliatives produced no improvement ; it was necessary to fall back upon a general survey of the country, and this was the conclusion arrived at in 1807 by a great committee of enquiry presided over by the celebrated DELAMBRE.

The regulations having reference to this work are the object of Chapter X of the law of the 15th September, 1807.

Begun some time afterwards, the survey was only finished in 1850 with the settlement of Cantal. The accomplishment of the survey of France has taken, therefore, more than 40 years ; that of the three departments annexed in 1860 is not yet completed.

This work has cost one hundred and sixty million francs—an expenditure justified doubtless by the richness of the country, the importance of the land-tax, and the variety of soil, of products and of classes in which those products may be ranked.

Decided upon, unfortunately, under pressure brought to bear by the tax-payers with no end in view except the equal adjustment of the tax ; inspired with the ideas of GALBERT, of JURGOT and of NECKER, who themselves sought no result from it but the means of checking arbitrary imposts, the survey of France is a purely administrative measure, of no use in legal transactions, and without effect as regards the registration of ownership.

Even considered from this limited point of view, can this immense work be accepted as final ? Has it satisfied the land-owners and the Government ? In no way. Complaints are still heard on all sides ; some departments and some *communes* are always being favoured at the expense of less fortunate districts ; these irregularities are exaggerated at will by the injured tax-payers, and there is no scheme which law-makers have not at some time or other proposed, and keep on proposing daily, in order to attain an even incidence of taxation.

Cadastral Survey in Cochin-China.—If the authority of the *Description de la Basse-Cochin-Chine* is to be trusted,

the Emperor GIA-LONG began in 1806 the survey of the Delta. No trace of this work remained, however, at the time of the conquest, and with his usual penetration, LURO points out that in documents and deeds before the time of MINH-MANG the area of lands is never expressed in *máu*, a circumstance which seems to exclude the idea of the existence of an earlier land-survey. It is more likely to have been a general map of the country that was drawn up in the time of GIA-LONG, and on this point the ordinarily accurate author of *Gia-dinh Thống Chi* is probably mistaken.

It is the Emperor MINH-MANG who really deserves the merit of having caused the execution of the native survey. In the 15th year of his reign, this sovereign sent into the southern provinces a special envoy, under whose direction a number of mandarin surveyors proceeded, with the concurrence of the interested parties and the local authorities, to register and compute the area of every allotment.

In spite of serious errors by which, according to the old (Native) Rulers, this survey was disfigured, the rapidity with which it was carried out is astonishing, and to account for it, one must remember the vigour of the administration of MINH-MANG, his great severity, and the promptitude with which his orders were executed.

But I hasten to say it would be most rash to deduce from this instance, an impression that the execution of the proposed cadastral survey is moderately easy. No analogy can be established between a register of holdings made without instruments by men ignorant of the first elements of geometry, simple eye-sketches barely verified by a few measurements, and the allotment survey required from our French surveyors.

The results of this work, which was so rapidly completed, were entered, for every village, in books, the so-called "descriptions of fields," *Đia-bố*. Far superior in this respect to our *livres cadastraux* (survey record books) in France, these *Đia-bố*, according to custom, take the place, to a certain extent, of the titles to property. It has been by amalgamating with these the supplementary registers (*cahiers de correction*) that the revenue-roll has since been drawn up; but this

collection of documents seems to have been very badly kept, and I do not suppose that it is of any great use now.

Schemes drawn up by the Survey Department.—The topographical department have, on their part, had under consideration the expenditure necessary for the execution of a cadastral survey of the Colony, and there exist in their archives two estimates, originating, one from M. BATAILLE, *Chef de Section*, and the other from the lamented M. BOILLOUX.

By M. Bataille, Chef de Section.—From information furnished by officers of Government and by surveyors, M. BATAILLE, in 1879, estimated, not very accurately, I fancy, the cultivated area of the Colony, the only portion to be surveyed, at 650,000 *hectares*.* With a staff of 24 Europeans and 37 natives, costing 377,948 francs and surveying annually 40,800 *hectares*, M. BATAILLE reckoned that the allotment survey of these 650,000 *hectares* would take 16 years and would cost 6,048,000 francs; this would be 9 francs 26 cmes. a *hectare*.

In these calculations, M. BATAILLE has omitted to include the cost of valuation, and of determining and marking boundaries; nor has he foreseen that a third of the staff will always be either ill or on leave, for he takes it for granted that the whole staff will be always at work at the same time; finally, he has not given a thought to the cost of keeping up the survey when once completed.

By M. Boilloux, Chef de Service.—M. BOILLOUX has taken these various matters into account. He supposes, further, that before this survey could be completed three-fifths of the Colony would be under cultivation. It is on the revenue survey of this area of about 3,600,000 *hectares* that he has based his calculations.

For the execution of this work, M. BOILLOUX estimated that there would be required a staff of, first, 84 Europeans supplying on an average 40 surveyors employed on the revenue survey, secondly, 105 natives, as demarcators and draftsmen. He calculated the annual cost to be 1,456,549

* 1 *hectare* = 2.471 acres.

francs. He set down the survey of four villages as the annual work to be expected from each of the forty surveyors, and concluded consequently that 16 years would be the period required for the survey of 2,460 * villages.

According to this scheme, to carry out the survey would involve an expenditure of the sum of 23,304,784 francs. But in this sum-total M. BOILLOUX did not include the cost of purchase and erection of permanent boundary-marks defining *cantons*, villages, and holdings; he supposed these charges to be borne by the *communes* and by private individuals. Allowing 40 boundary-marks to each village, at a cost of 5 francs per mark, there is an expenditure of 500,000 francs to be added to the estimate of M. BOILLOUX for the demarcation of villages alone. This sum must be increased ten-fold to arrive at the cost of the permanent demarcation of private properties.

To maintain and turn to account this work, which 189 Engineers and Overseers will have thus completed in 16 years, a staff of 124 persons, exclusive of revenue officers and valuers must be kept up, and under this heading M. BOILLOUX estimated an annual expenditure of 960,633 francs. At the rate of 5% this sum represents a capital of 19,212,660 francs, which added to the cost of the survey, namely, 23,304,784 francs

makes a total of 42,517,444 francs
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as the expenditure which, in the opinion of M. BOILLOUX, would be required to carry out and maintain a cadastral survey. According to these calculations the cost of the allotment survey and the registration staff amounts to 10 francs 75 cmes. per *hectare*.

These sums speak for themselves. But, even so, granting the *data* (open to question though they are) on which M. BOILLOUX'S calculations are based, the sums for which he asks appear to me to be insufficient.

In these calculations, in which, at first sight, he seems to

* 2,560 (?)—W. E. M.

have allowed for all contingencies, M. BOILLOUX has neglected to take into account the mistakes and disappointments which are inevitable here in an undertaking of this kind. He has not taken into consideration that, where such a large staff is employed, in spite of all the care taken in recruiting, a comparatively large number of important hands must be non-effectives, spending without producing; that of the 84 surveyors employed at the start, very few would see the end of the work; that provision must therefore be made for replacing them and for the instruction of their successors; all this at a very considerable outlay, which he has not taken into account.

On the other hand, in reckoning on three-fifths of the Colony being under cultivation before the completion of the survey, M. BOILLOUX seems to me to have been led into exaggeration in the opposite direction.

These three and-a-half million *hectares* will no doubt be under the plough some day, but this can only be in the distant future, much further off than the end of the 16 years allowed by M. BOILLOUX. To obtain such an extension of cultivation, so rapidly, it would be necessary to take in hand the reclamation, by means of canals and embankments, of the unreclaimed swamp which comprises one-half of the Colony, and to populate the lands thus gained by forming new villages on them. At no great outlay, I fancy, a large part of the extensive marshes to the north of Cholon and of Tanan, those of the plain of Reeds (*Foncs*) of Baclicu, Cantho, Soctrang, Longxuyen and Chaudoc and even perhaps the vast uninhabited tracts of Rachgia, Camau and Hatien might be drained sufficiently to allow of their conversion into paddy-fields.

But these drainage works on which, in my opinion, the Colony ought to concentrate its greatest energy, must, it seems, be reserved for another generation, and one cannot, therefore, take as a basis for calculation the results which may be produced by them.

It is necessary to seek elsewhere grounds on which to base estimates which the periodical recurrence of these visionary schemes induces me, in my turn, to present to you to-day.

On the 31st December, 1884, the cultivable area, measured by the topographical staff, amounted to about 730,000 *hectares*. The cultivated land of the *arrondissements* or of the *cantons* remaining still to be surveyed was approximately 70,000 *hectares*.

We may, therefore, consider 800,000 *hectares* to be the cultivable area which will be shewn in the returns of cultivation furnished by the topographical staff when the survey on the scale of $\frac{1}{200000}$, now approaching completion, shall have been finished. But some *arrondissements* and those not the least important ones were surveyed before the remarkable activity which has been shewn recently in jungle-clearing, and it must be remembered that the returns do not shew the present state of the cultivation of those sub-divisions, but on an average that of the years 1881-1882.

The Colony exported in 1881, ...	4,210,000	} piculs of pad- dy and rice.
„ „ 1882, ...	6,160,000	

Total, ... 10,370,000

Average for two years, ... 5,165,000

Allowing ten piculs to each inhabitant, the local consumption may have amounted in each one of these years to 16,300,000

For seed ($\frac{1}{24}$ of the harvest) there must have been required,	900,000
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The average produce for the years 1881 and 1882 must therefore have been,	22,400,000
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The export rose in 1883 to,	8,630,000
„ „ 1884 „	8,445,000
Total,	17,075,000

Average, ... 8,538,000

The local consumption, which must have slightly increased may be put down for each of these years at,	16,600,000
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For seed there must have been required, ...	1,040,000
Average produce of each of the last two years, 26,180,000	
Average of the years 1881 and 1882 brought forward, ...	22,400,000
Increase, ...	3,800,000

There does not seem to have been any noticeable improvement in the attention given to the land or in the choice of seed, during the last three years ; the climatic conditions have remained about the same, there is no reason, therefore, why the return per *hectare* for 1883 and 1884 should have been appreciably larger than that of the two preceding years. It is in the extension of the area taken up for cultivation that we are compelled to look for the cause of the increase in value of production, the sum of which may consequently enable us to calculate the extent of the accession to the area planted with rice.

The Annamites divide the paddy-fields into five classes producing from 35 to 15 piculs of rice per *hectare*. Opened by people without much capital, on land not yet sufficiently prepared for cultivation, and in any case far inferior as regards soil to the splendid paddy-lands which date from ancient times, the new grain-fields may, in general, be ranked in the 3rd class, that which produces 25 piculs to the *hectare*. The quotient found by dividing 3,800,000 by 25 would give, therefore, approximately the extent of land lately brought under cultivation. This would seem to be 152,000 *hectares* and this has to be added to the total of the cultivated area as computed by the topographical department, namely 800,000 *hectares*, in order to find out the total of the cultivated area of the Colony, which may thus be put at 950,000 *hectares*.

Other kinds of cultivation, with the exception, perhaps, of some betel-nut gardens, are so little developed that it seems useless to take them into account.

If, then, like Messrs. BATAILLE and BOILLOUX, I were to lay down 16 years as the period necessary for the completion

of a cadastral survey, I should have to add to the above total of 950,000 *hectares* the land gradually opened up for cultivation during that period. Taking into account the results of the last two years, and always remembering that the population must soon begin upon the marshes, which will be more and more difficult to reclaim, I estimate, somewhat arbitrarily no doubt, that in this coming period of 16 years the area under cultivation will be increased by 500,000 *hectares*.

The survey then must be applied to a surface of 1,450,000 *hectares*.

Estimating the cost of the survey and establishment at 11 francs the *hectare*, the expenditure would amount to about 16,000,000 francs.

The survey of France, which, in consequence of the rise in the price of everything in recent times, would be a much more serious undertaking now-a-days, cost 150 million francs, or about 3 francs a *hectare*.

For this country, the salaries assigned to surveyors must be multiplied by three, and though a revenue-survey may be carried out more easily in the Colony, it must be remembered that an operator employed here will turn out, on an average, only about two-thirds of the work of one of equal ability and industry working in France. As the two circumstances last stated nearly counterbalance each other, it is sufficient to take into consideration only the difference of salaries, and, looking to this fact only, we may safely put down the cost of the survey at 9 francs the *hectare*. My estimate of 11 francs, which includes the registration establishment, would, therefore, probably be rather under the mark.

Having taken all possible care to reduce everything that can possibly be objected to as exaggerated in M. BOILLOUX's figures, I have now to give my opinion as to the chances of success, which, whatever may be its cost, the cadastral survey would have.

Here is my opinion in two words:—

I. The cadastral survey, if it is undertaken, will never be finished.

II. Whatever portion of it is completed will never be kept up and its value will be lost.

On these two points, I entertain the most absolute conviction. I know the Colony well enough not to be afraid that future events will prove me to have been wrong.

II.

The Use of the Survey of the Colony.

I have shown above at what a heavy figure the expense of a cadastral survey must necessarily be estimated.

I have not attempted to conceal the small amount of confidence I entertain of the success of such an undertaking.

It only remains to give my opinion as to its utility, and on this point I shall speak even more plainly. The cadastral survey (*cadastre*), giving the word the meaning it possesses in our language, and in our system of administration, that survey which has, up to the present time, been kept in view in the Colony, and in reference to which the schemes which I have just reviewed have been drawn up, such a survey has no *raison d'être* here, it would be useless; much more, it would do actual harm.

We found in Cochin-China an admirable institution which used to be of the greatest service to the Annamite Government, and which, to us strangers to the lands, the language and the customs of the population, has been still more useful; I refer to the Annamite system of district-government by *communes*, an institution which, instead of trying to ruin by awkward administrative importations, we ourselves, weakened as we are by centralisation, might perhaps seek to introduce into the mother-country for the good of the nation.

The native *commune* has been much encroached upon already, at all events, as regards the collection of the direct taxes (and this is one of its most important functions); it still exists with its principal attributes. Beyond the twentieth *arrondissement*, the Government has no need to know the 1,600,000 inhabitants of the Colony. It is sufficient to communicate with the 2,450 municipalities by the medium of whom the taxes are collected without documents, prosecutions or expense.

I will not deny that abuses may arise from this mode of procedure, but such abuses are not the result of French administration, they have existed, and in a much greater degree, from time immemorial; they are less felt in all that regards the assessment of allotments for land revenue than in any other matter, and they do not affect the interests of the Treasury in any way.

The Officers of Government who know by the computations of the (topographical) survey the exact area of land under cultivation in each village, can in fact maintain a check upon the full collection of the land revenue, nor do they fail to do so, and in *arrondissements* where the holdings have been completely surveyed, the difference discovered between the actual cultivated area and that on which revenue is paid is comparatively unimportant, it amounts to about one-fortieth.

Arrondissements.	Area under cultivation.		Difference.		Remarks.
	According to the revenue-rolls of 1885.	According to calculations of the topographical survey.	Excess.	Deficiency.	
	<i>Hectares.</i>	<i>Hectares.</i>	<i>Hectares.</i>	<i>Hectares.</i>	
Baria, ...	10,233	10,548	...	225	
Bienhoa, ...	29,050	26,143	2,807	...	
Saigon, ...	47,179	57,906	...	10,727	
Cholon, ...	59,952	65,834	...	5,882	
Gocong, ...	37,798	38,303	...	505	Deficiency 22,042
Tanan, ...	42,865	43,499	...	634	Excess 7,336
Mytho, ...	99,938	102,769	...	2,831	14,706
Bentré, ...	87,988	87,332	656	...	
Vinhlong, ...	79,790	75,917	3,873	...	
Sadec, ...	52,100	53,338	...	1,238	
	544,893	561,499	7,336	22,042	

At Travinh and at Soctrang, the difference seems to be more considerable. Although the survey of these *arrondissements* is not yet finished, the cultivated area, according to the calculations of the survey department, already exceeds the area on which revenue is paid, in Travinh by 7,603 *hectares*, and in Soctrang by 3,211 *hectares*. But there can be no doubt that when the topographical survey of these *arrondissements* is finished, the local officials will hasten to take advantage of the materials for a check furnished to them by the cultivation returns, to secure accuracy in the revenue declarations of the villages.

Thus, without any expense whatever, and without even the European staff being brought into contact with the taxpayers, the land revenue is collected at the present time almost without arrears. The cadastral survey once effected, the collective liability of the *commune* would be transformed into the personal contribution of the individual and all the *arrondissements* would thus become *vingtièmes*. Every *administrateur*, or rather every *contrôleur*, for officials of this nature will have to be created, would have to open registers of holdings, to keep a record of numerous mutations of title, and to keep nominal rolls which the central office will have to verify entry by entry. Next, the tax gatherer will come and he will have to serve a notice of demand on every taxpayer, to see him, to listen to his excuses, and to sue him and levy an attachment in case of non-payment.

Attachment on what? The Annamites have no furniture, the animals used in cultivation are as much landed property as the fields themselves. For arrears to the amount of \$2 could one go as far as to seize immoveable property?

In an *arrondissement* which is subject to the assessment of one-fifth, the Government expends, in order to collect the land-revenue, forty per cent., perhaps, of the sum realised. I do not profess to say that the same thing must necessarily occur in all *arrondissements*, for in the latter the payments may be heavier, but at least it is not rash to suppose that the cost of assessing and collecting the revenue will be considerable; that the collections will far exceed the utmost expectations of

those who hold the most optimist of opinions—as far as I am concerned, I distinctly deny.

Everything being taken into consideration, the immense labour which the direct taxation of individuals will entail upon the Government, will result in the reduction, in a sensible degree, of the actual sum realised by the land-tax, and further, in consequence of the transport charges which will have to be incurred, will increase the burden on the native population.

This, therefore, is what would be the probable result of effecting a cadastral survey, with its natural consequence, the separate direct liability of each land-holder for the land-tax.

I have already stated what a large establishment it would be necessary to keep up in order to secure the due working of these institutions. I need not go on to point out how greatly increased the Central Government will find their work and responsibility to be, by having to control and direct an entirely new financial department, with the public works necessitated by it.

Almost the whole of Eastern Indo-China is being laid open, at the present day, to our action, and in order to fulfil the mission thus imposed upon it, the Government has need of all its liberty; is this the time for the introduction here of reforms, or rather of useless changes, the putting of which into operation will absorb all our attention and the sole result of which will be to accentuate the differences which may exist between Cochin-China and Tonkin, to the prejudice of the administrative union of the two Colonies?

Let us rather respect what still survives of the organisation of the Annamite *commune*; this institution will be invaluable to us in Tonkin; thanks to it, we govern Cochin-China easily. But we take advantage of it in an ungrateful spirit, and we shall not appreciate its benefits until the day when its disappearance shall enable us to judge how well it served us when we had it.

III.

Means of introducing the Torrens System into Cochin-China.

I shall now pass to another subject, in which I trust to be able to interest the Committee in a more special manner.

All administrators and lawyers who have to deal with questions relating to loans on landed security and on agricultural property, are acquainted, in its general features at least, with the ingenious system invented at Melbourne * by the Hon'ble Mr. TORRENS † and so properly called after his name.

Land-owners in Australia who are desirous of bringing their land under the Torrens system, send in their title-deeds to a special office, where they are examined, in the same manner as the titles of a vendor are scrutinised by the purchaser, and where, after this verification, they are entered, if need be, in registers kept for this purpose. In consideration of a small payment, the Government certifies thenceforth that the person named in the title (*porteur du titre*) has the right to dispose at will of his property, free from all charge, and undertakes to indemnify those who advance money upon it, in case of eviction.

These titles may thenceforth be employed as freely as negotiable instruments; they become regular securities (*des véritables warrants*), and are transferred, and pass from hand to hand with the same facility. Simple promissory notes afford in this way the same security as mortgages of real property, and land becomes the safest medium of credit.

In Australia, where, in many respects, land is not more valuable than here, the Torrens system has produced very remarkable results; the costs of conveyancing, so heavy in English possessions, have fallen to next to nothing; dealings are put through without delay, and in no single case (at least up to 1878) has the liability of the Colonies been brought into question.

The analogy which exists between the Torrens system and the practice which obtains among the Annamites of guaranteeing possession of land by the issue of title-deeds, struck me forcibly during my stay in Australia, and I have ever since thought that the adoption of the former here would be in the highest degree useful and very easy.

* At Adelaide.—W. E. M.

† The late Sir R. R. TORRENS.—W. E. M.

All the reflection which I have bestowed on the subject since has only confirmed me in this idea.

Annamite law does not recognise any absolute rights in real property, whether express or implied.

Native land-holders only borrow, ordinarily at the sowing season, on an undertaking to repay the advance at harvest, eight months afterwards.

They are the victims of the most frightful usury.

There exist at Saigon great money-lending institutions* which would find every advantage in embarking in these agricultural loans. Their intervention would at once reduce by four-fifths the rate of interest which the native land-holders pay at present. Perhaps, even, the Bank of Indo-China would be willing, in consideration of the deposit of title-deeds, to make the necessary advances to cultivators.

All these different circumstances tell greatly in favour of the adoption of the Torrens system, and the natives who seem to have had an intuitive idea of the principle, would at once appreciate the benefits derivable from it.

Should the Torrens law (*l'acte Torrens*) be applied to the Colony, it would be necessary to undertake, not a cadastral survey (*cadastre*), but a registration of holdings (*levé*) and the demarcation, with the concurrence of contiguous proprietors (*délimitation contradictoire*) of those lands the owners of which might apply to have them brought under the new system. New titles of uniform tenor, drawn up in accordance with a form agreed upon, would be issued then to the parties entitled.

Surveyors attached to the principal *arrondissements* might be entrusted, in such numbers as the demand for their services might require, with the scientific part of the work; the civil functionary in charge, an officer deputed by the *direction de l'intérieur* (possibly an *employé des domaines*), the *chef du canton*, and a headman selected in the village would pronounce upon the titles of the land-holders, would exercise a careful watch over the interests of third persons and of the

* The Bank of Indo-China, the statutes of which might easily be modified; the Hongkong and Shanghai Banking Corporation, and the Chartered Bank.

Colony, would sign, with the parties interested, the descriptions of boundaries, and would prepare the new certificates of title.

The costs of these proceedings might be charged in part to those land-holders on whose account they are incurred, the balance would not be a very heavy charge on the local budget.

In a short time, and without undue expense, the Government would, I believe, by this means, accomplish the definition and demarcation of holdings. And these combined measures would not only facilitate the enforcement of the Torrens system, but, by determining the extent and the boundaries of holdings, they would operate in putting an end to the numerous law-suits to which boundary questions give rise. *

None of these advantages can be hoped for from the cadastral survey.

CAMOUILLY.

* Number of suits tried in 1884, in which claims to land or disputes about boundaries were the cause of action :—

Court of Binh-hoà	...	...	66
Mytho,	...	...	13
Chaudoc,	...	...	133
Vinhlong	No returns furnished.		
Bentré,	...	...	136
Soctrang,	...	...	19
			<hr/>
			367
			<hr/>